

XIX.—Notes on some Land-Shells from Vanbu, Tonkin, with Descriptions of Two new Species. By EDGAR A. SMITH.

*Helicarion siamensis*, Haines.

*Vitrina siamensis*, Haines, Pfeiffer, Mon. Hel. vol. iv. p. 158.

*Helicarion Paviei*, Morlet, Journ. de Conch. 1889, p. 174, pl. vi. fig. 1.

*Hab.* Siam (*Haines*) ; Cambodia (*Morlet*).

The specimens from Vanbu, Tonkin, are as large as those described by Haines and Morlet. The former does not mention the feeble spiral striation, but, in his brief diagnosis, he may have considered it scarcely worth noting. Specimens in the Cuming collection, obtained by Morlet in Cambodia and identified by Pfeiffer as *siamensis*, agree with the Tonquin shells.

*Nanina distincta*, Pfeiffer.

*Helix distincta*, Pfr. Conch.-Cab. ed. 2, pl. cxxxiv. figs. 1, 2 ; Reeve, Con. Icon. fig. 465.

*Nanina distincta*, Martens, Preuss. Exped. Ost-Asien, Zool. vol. ii. p. 69.

Var. = *H. Neptunus*, Pfr. Novitat. Conch. vol. ii. p. 176, pl. xlviii. figs. 1, 2 ; Tryon, Man. Conch. ser. 2, vol. ii. p. 34, pl. viii. fig. 27.

Var. = *H. pluto*, Pfr. Novitat. Conch. vol. ii. p. 210, pl. lv. figs. 8, 9 ; Tryon, Man. Conch. ser. 2, vol. ii. p. 37, pl. xii. fig. 56.

*Hab.* Siam, Camboja.

Two forms of this species, both smaller than the type or the variety *pluto*, are in the present collection from Tonkin. In the first (var. *funerea*) the shell is of an almost uniform purplish-black tint, redder towards the apex, the suture being sometimes indistinctly margined with yellow. The peristome is yellowish and a former lip is also visible at a considerable distance from the aperture. The body-whorl is not quite so inflated below the keel as in the var. *pluto* or the type. The largest specimen is 53 millim. in its greatest diameter, and appears to be adult.

The second variety (var. *pallidior*), of about the same size, is yellowish or olive-yellow, with a broad brownish-black band below the periphery and distinctly visible within the aperture. In both these varieties the umbilicus is rather narrower than in the typical form from Siam or the var. *pluto* from Camboja. If the form *pluto*, an intermediate link,

were unknown, the two present varieties would probably be regarded as constituting a distinct species.

*Camæna illustris*, Pfeiffer.

*Helix illustris*, Pfr. Proc. Zool. Soc. 1862, p. 269, pl. xxxvi. fig. 8, var.;  
Novitates Conch. vol. ii. p. 208, pl. lv. figs. 1, 2 (type), fig. 3 (var.).

*Camæna illustris*, Pilsbry, Man. Conch. 2nd ser. vol. ix. p. 104, vol. vi.  
pl. xiii. figs. 57, 58.

*Hab.* Lao Mountains, Cambodia (*Pfr.*).

Some specimens from Vanbu, Tonkin (var. *tonkinensis*), differ from both the type and variety (var. *flava*) described by Pfeiffer. In form they are a little more ventricose, and they also differ in coloration. The general ground-tint is purplish red, interrupted at the periphery by a rather broad yellowish zone, the middle of which is traversed by a deep red line varying in width from 2 to 4 millimetres. The aperture and peristome are livid or lilac, but the columellar callus in the centre of the base is white and entirely conceals the umbilicus. Near the latter there is a distinct inflation of the surface, a feature less marked in the original specimen described by Pfeiffer.

*Camæna vanbuensis*.

Testa magna, solida, obtecte perforata, depresso conoidea, in medio acute carinata, saturate castanea; spira brevis, convexe conica, ad apicem obtusissima, rugis obliquis irregularibus undique sculpta; anfractus 5, celeriter sed regulariter accrescentes, ad suturam carinati, primi duo convexiusculi, sequentes duo planiusculi, ultimus ad peripheriam acute carinatus, supra valde concavus, haud descendens, infra convexus, sed prope carinam leviter excavatus vel impressus, concentricè subreticulatim rugosus; apertura paulo obliqua, livido-fusca, submargaritacea vel iridescens; peristoma incrassatum, expansum, reflexum, hepatico-fuscum, nitens, marginibus callo tenui cæruleo-albo junctis, columellari ad insertionem conspicue incrassato expanso et reflexo, umbilicium fere obtegente.

Diam. maj. 68 millim., min. 57, alt. 38; apertura intus 31 lata, 18 alta.

*Var.* Testa olivaceo-flavescens, carina castanea cineta.

This species differs only in form from *C. illustris*, Pfeiffer, the colour, number of whorls, sculpture, aperture, and peristome being similar in both. The flatness of the whorls and the sharp carination at the periphery, however, at once distinguish this form, which, until the connecting-links are

discovered, stands as a well-marked recognizable species. That such links will eventually be found is very probable, in which case the specific name here suggested may be used in a varietal sense.

Instances in which keeled varieties of species with a normally rounded body-whorl occur might be mentioned; but I doubt if such an extreme case as the present could be shown.

*Eulota rostellata*, var.

*Helix rostellata*, Pfeiffer, Novitates Conch. vol. iii. p. 379, pl. lxxxviii. figs. 1-3; Pilsbry, Man. Con. ser. 2, vol. vii. p. 83, pl. xviii. figs. 48-50 (after Pfr.).

*Hab.* Lao Mountains, Cambodia.

Two specimens from Vanbu, Tonkin, differ from the typical form in being a trifle more widely umbilicated and rather less acutely carinate, the form of the peristome being consequently more regularly curved at the termination of the keel.

*Pterocyclus vanbuensis*.

Testa parva, discoidea, latissime umbilicata, lutea, maculis castaneis supra radiatim arcuatis picta, infra peripheriam zona angusta castanea cincta, limo undique induta; anfractus 5, convexi, incrementi lineis tenuibus striati, striis spiralibus tenuissimis obsolete sculpti; apertura circularis; peristoma duplex, margine externo leviter expanso, ad suturam haud profunde sinuato; operculum corneum, utrinque in medio concavum, multispirale, supra concentrice lamellatum, lamellis ad marginem aculeatis.

Diam. maj. 10 millim., min.  $8\frac{1}{2}$ , alt. 5; apertura  $3\frac{1}{2}$  lata.

This species has the habit of coating its surface with mud, thus concealing the colour-markings. In form and coloration it recalls *Pt. rupestris*, Benson, the type of the genus. It is, however, smaller, the lateral notch is shallower, and the alæform expansion above it is only feebly indicated. The operculum also is more horny and flatter. The species might also be compared with the large *Pt. planorbulus* (Lamk.) as regards the general form, the character of the notch in the peristome, and the operculum.